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your journal. Knowing full well that the value of property is first to be established before there can be any general interest in its ownership, I do not ask to occupy the pages of your journal with the unprofitable discussion of mere *priority*, but desire to present from the *records*, the data upon which my strictures in that lecture were based, and are still maintained. As these records are not generally accessible to your readers, I believe this will not be uninteresting.

Very respectfully,

Your obedient servant,

J. H. WATTERS,

Prof. Physiol., Pathol., and Clin. Med. in the Missouri Med. College.

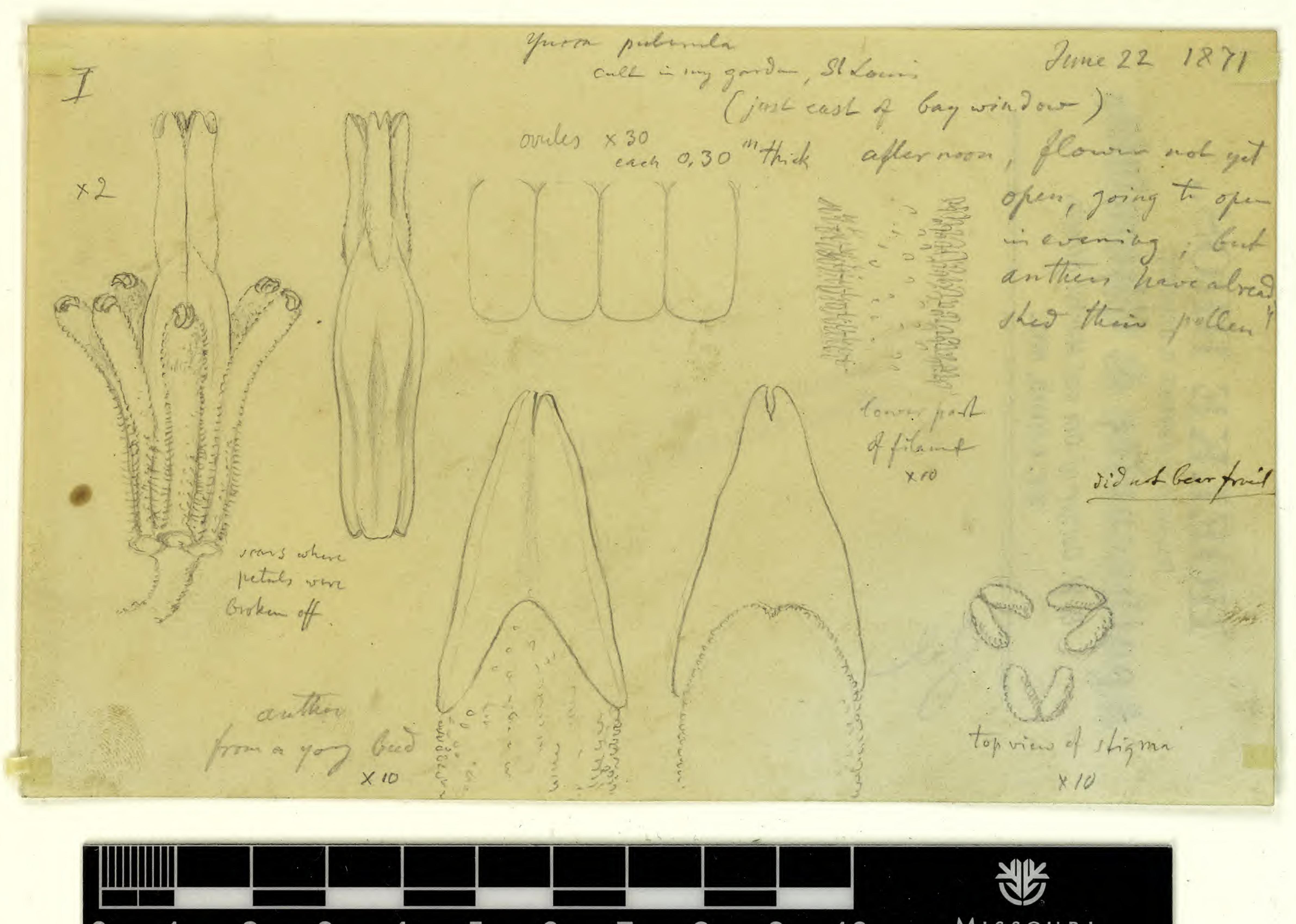
In the year 1849 I commenced attendance upon medical lectures in the University of Pennsylvania, being already somewhat imbued with the principles of mathematics and natural philosophy by previous studies. With these principles, which I considered immutable, I could not reconcile much that was then being taught me. For instance, I could not see clearly how matter could be inert and at the same time endowed with active properties. At that time the only works of Dr. Carpenter to which I had access were his "Human Physiology" (our text book) and his article "Life," in the Cyclopædia of Anatomy and Physiology. In this last the doctrine which he advocated was, that matter capable of assimilation is endowed with dormant vital properties which are developed we had not only inert matter with active

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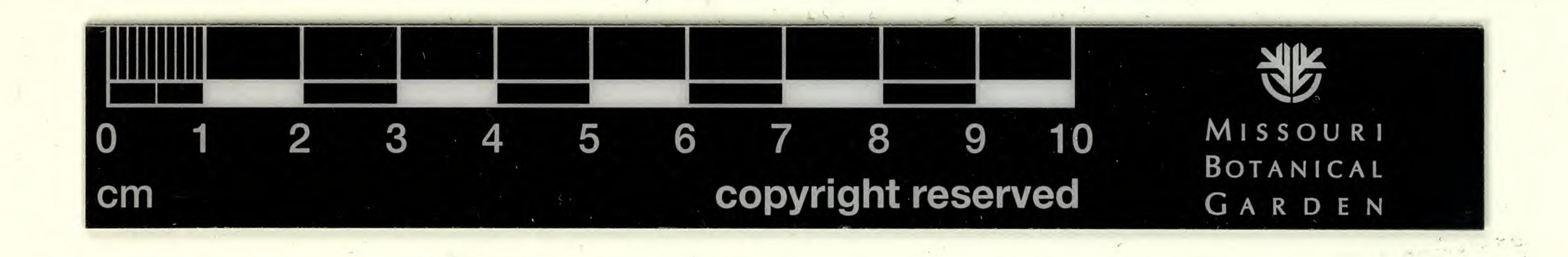
and moisture tend to cause decay in organic matter—to cause organic compounds to resolve back into the inorganic! How is this, that these same conditions of destruction should be the conditions of life, development, and growth, when they act upon the seed, if there had not been in the seed all the time some "force" to resist their natural tendencies, which they "stimulate" into "activity"? Air, heat, and moisture can not have the power of discretion or will. Then they must act upon the seed as upon other organic matter, and the difference of behavior must depend upon somewhat connected with the seed. But this somewhat can not be a "dormant" force, or "dormant vitality," for that is absurd and contrary to what is received as first principles in natural philosophy. But hold! do not the motions of the clock depend upon the conditions of gravity acting as elsewhere? And does not the clock move only as the weights descend? Then why may it not be with the seed as with the clock, that that which determines its peculiar behavior is the form, the adjustment, the organization? The somewhat peculiar in the seed then would be, not a "dormant vitality," but a peculiar form. If the weights (gravity—the downward tendency) be taken away, the clock will not move; so, why may not life and decay be reciprocal?

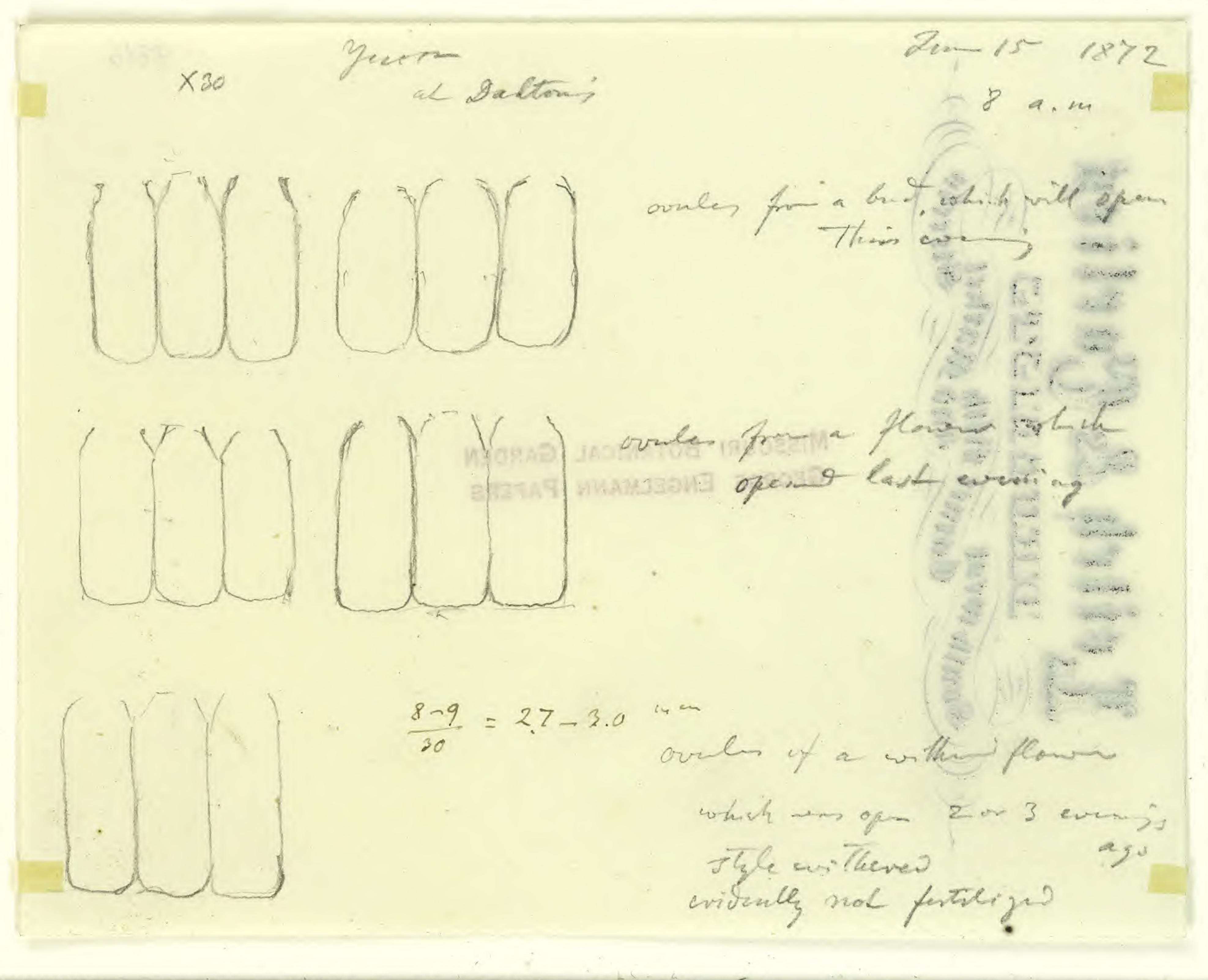
This reflection occurred first in the form of a query; but, like a flash, it assumed the appearance of a great truth. It was to me as real (for I believed it) that I had struck the key note to which the harmony of all nature is accommodated; the fur lamental



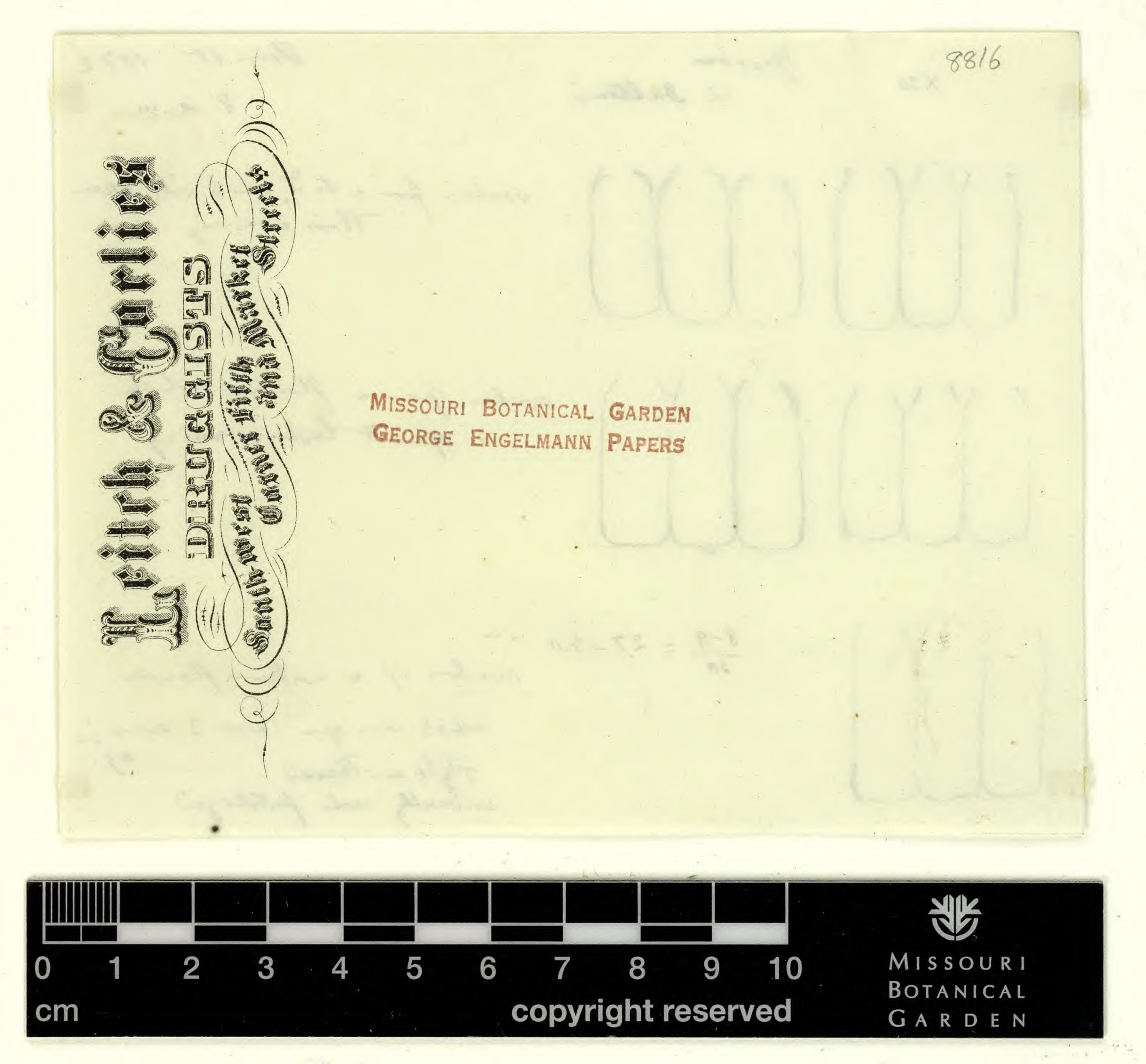


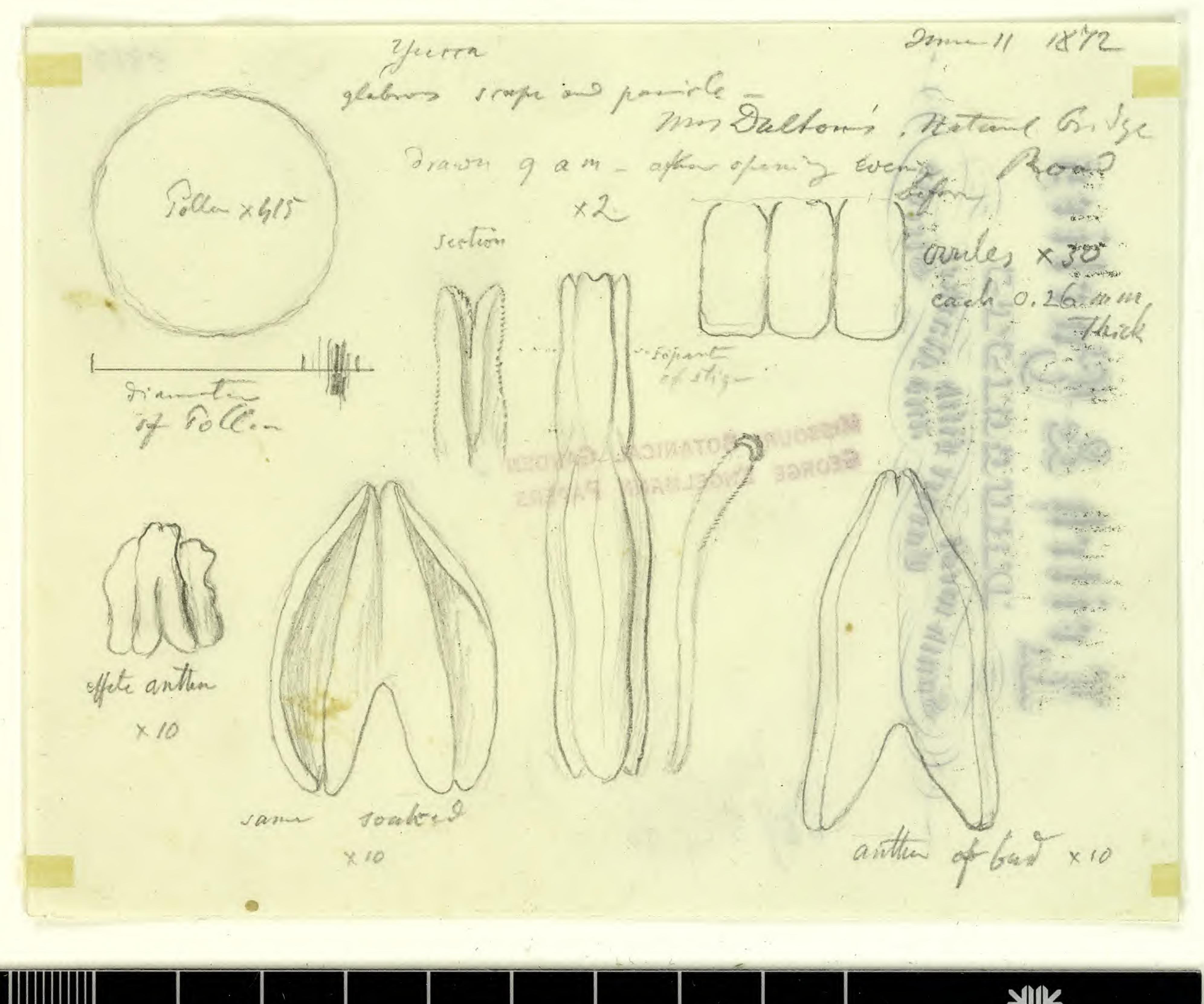


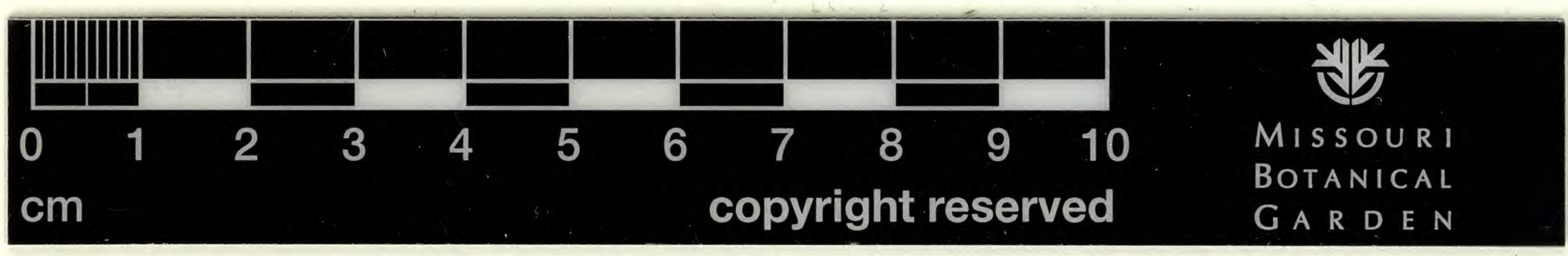




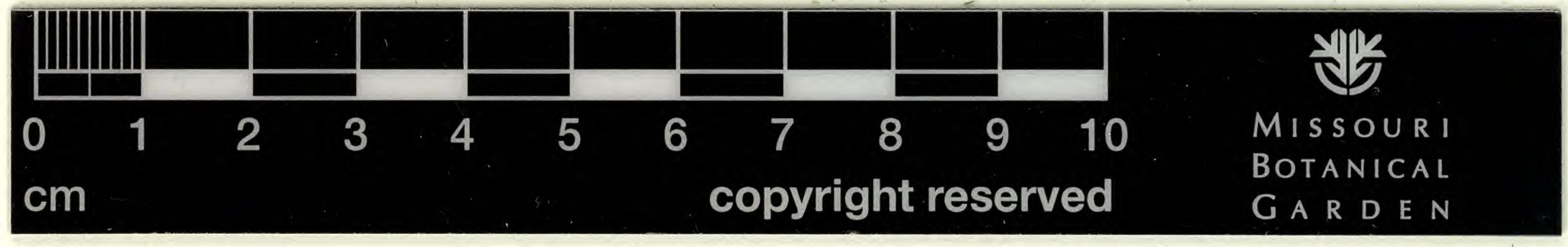


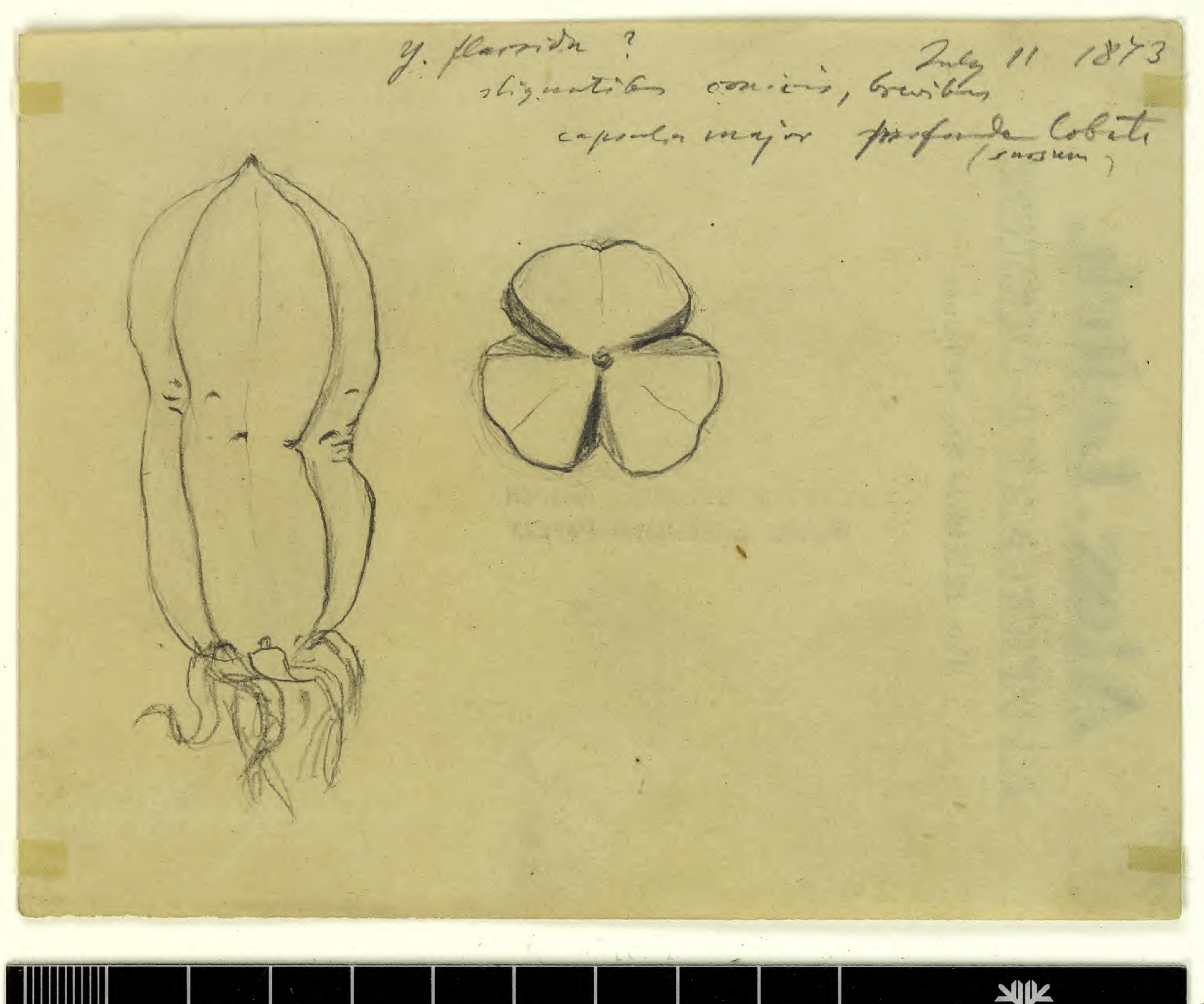










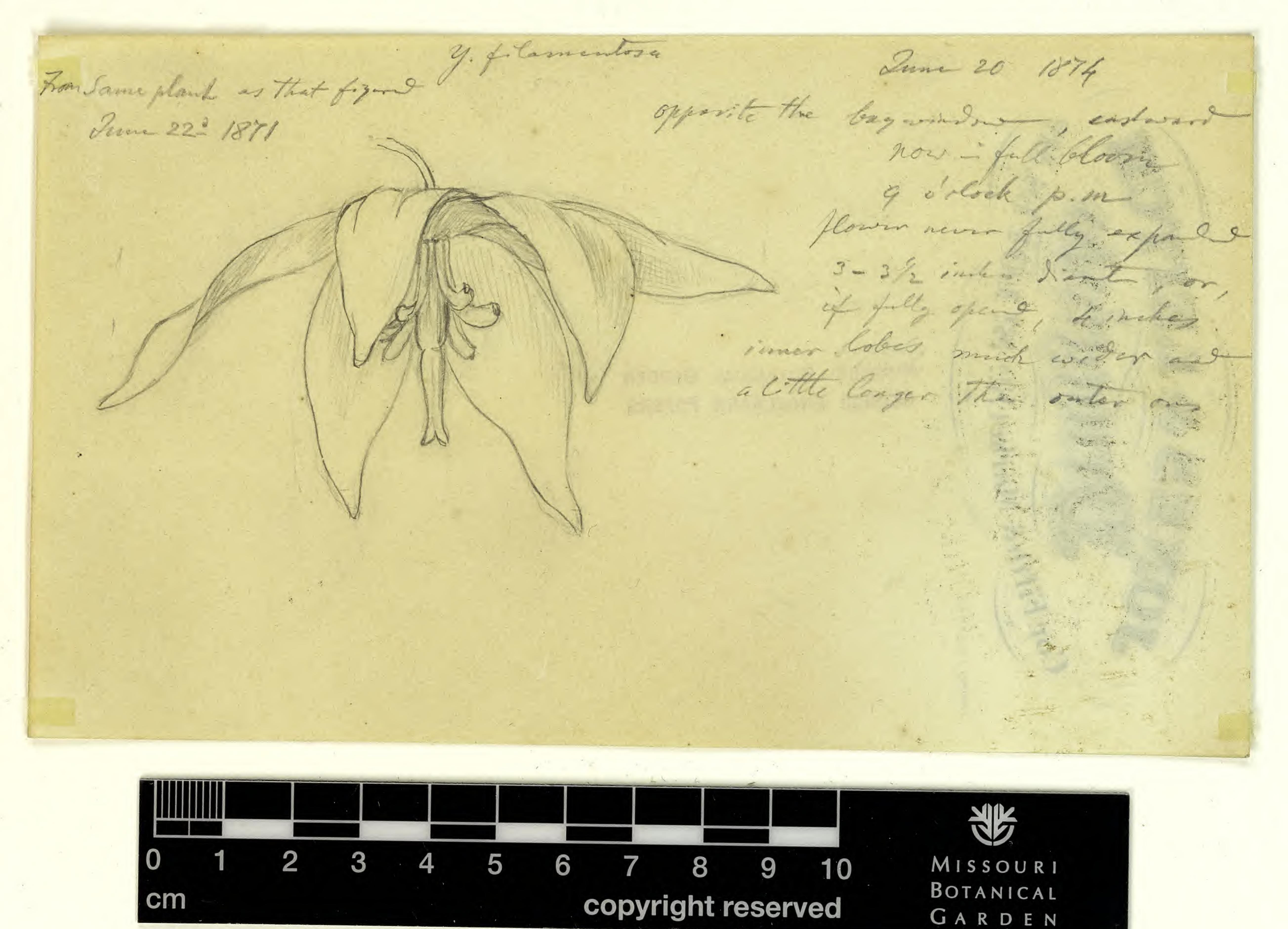


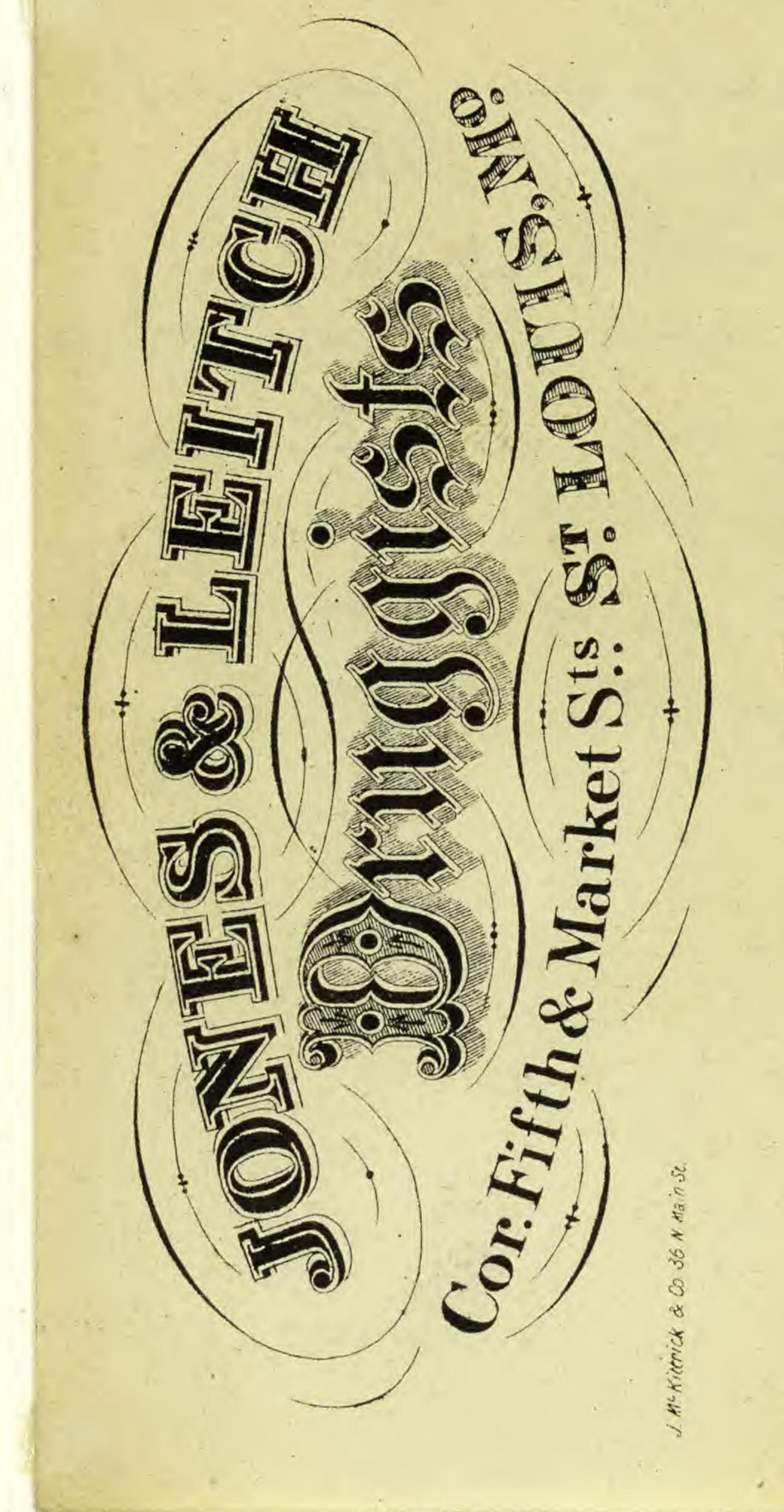


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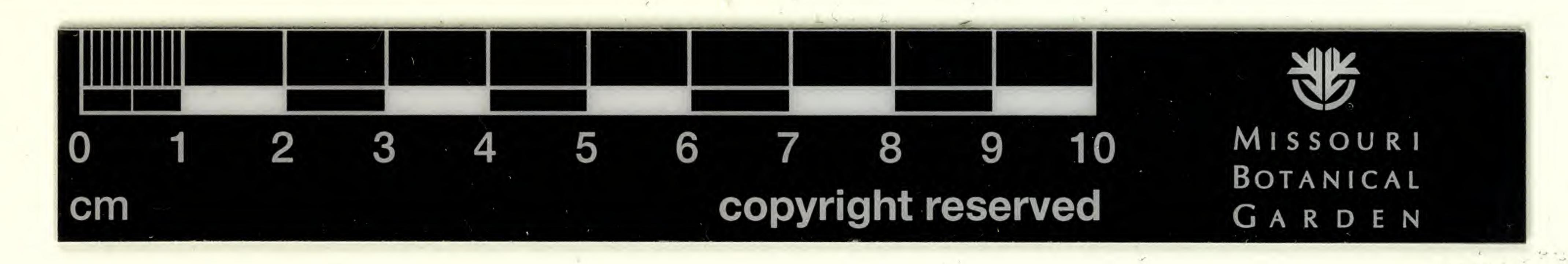
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


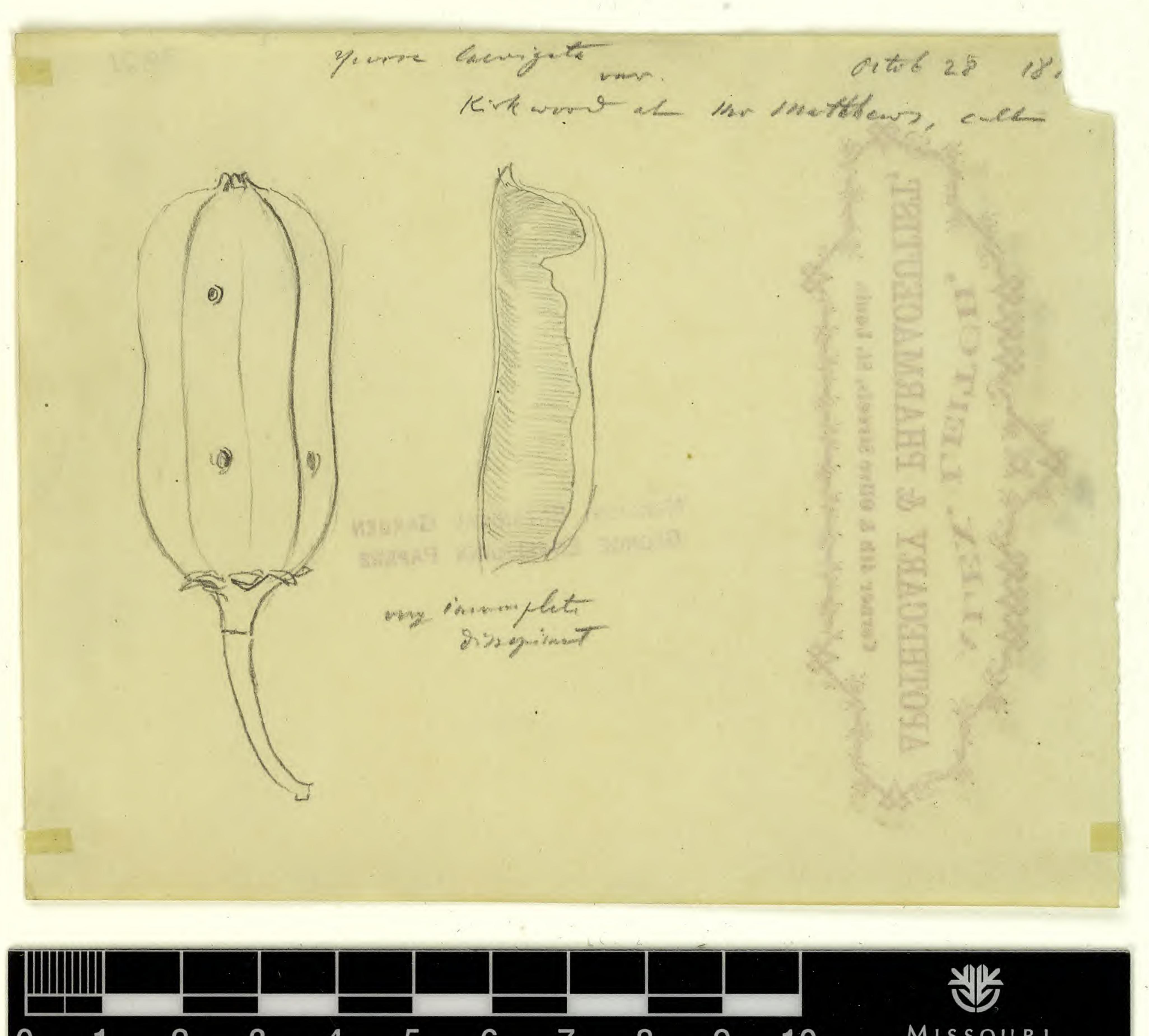
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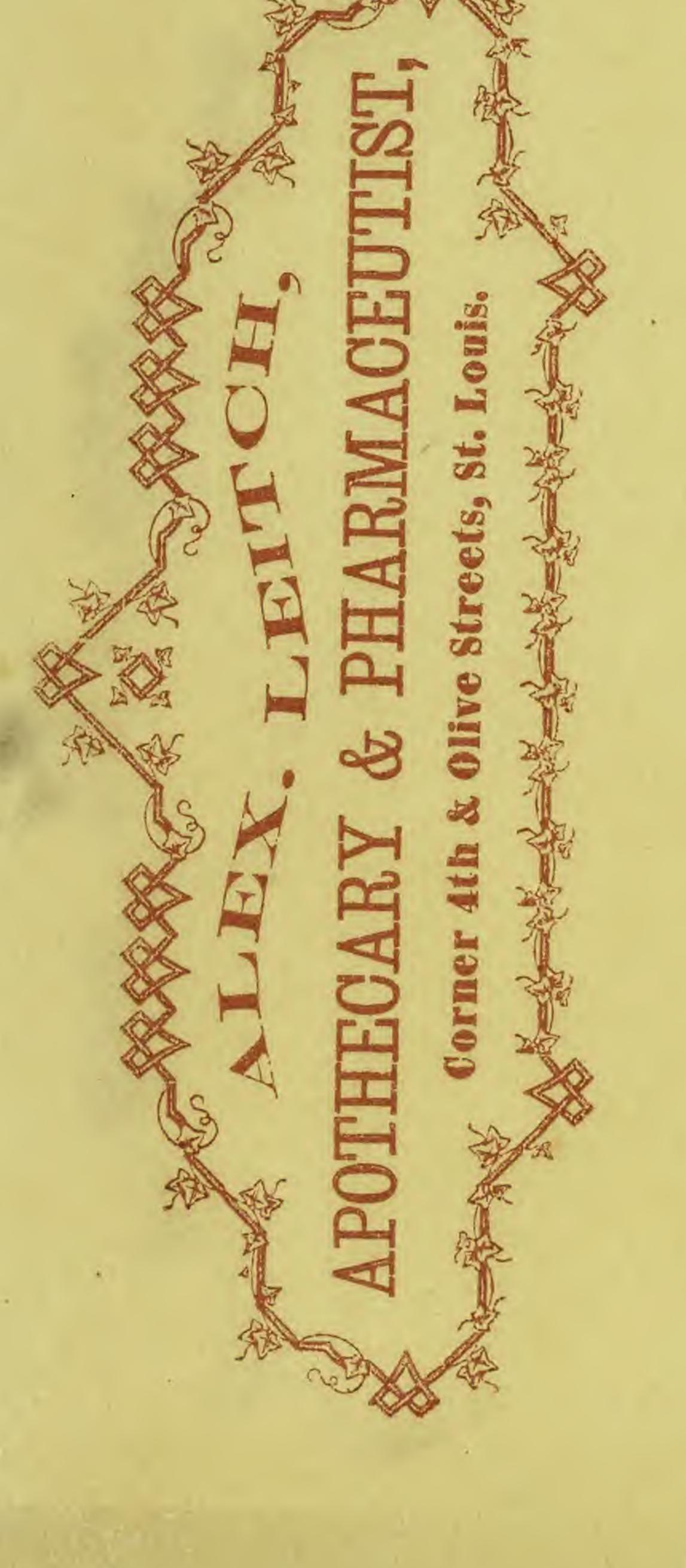
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